C4485 -1A -
3/19/87

MARCH 23, 1987

- Sizing up the new micro superchargers
- Blunting Cobra's bite
- Dark data centers
- Desk-top publishing's integration challenge

COMPUTER DECISIONS®
THE MAGAZINE FOR MIS EXECUTIVES
A HAYDEN PUBLICATION

A GRAND NET PLAN

New York's Chemical Bank pioneers a far-reaching network designed to link 260 branch office LANs with mainframes via IBM's LU 6.2.

PAGE 45

Rosemary Baer, vice president/ department head for online systems planning and development, is the architect of Chemical's new network scheme.

COMPUTER DECISIONS A GRAND NET PLAN MICRO SUPERCHARGERS MARCH 23, 1987 VOL 19 NO

March 23, 1987

COMPUTER DECISIONS

Volume 19 Number 6

NEWS

14 News Scan

News Analysis:

16 Bankers get NSA to agree to extend the life of DES

18 Is CCEP out of step?

20 EDI: Not just do-it-yourself

24 X Window promises clearer view

31 Smaller raises, benefits in 1986

NETWORKS & COMMUNICATIONS

Cover Story

45 Grand net plan/New York's Chemical Bank is playing with a plan for a network to link 260 branch office LANs with mainframes.

Cover photo: Ted Hardin

DEPARTMENTAL COMPUTING

50 So, you want to be a publisher/Big corporations hope computers can cut their publishing bills. To achieve that goal, however, means taking on a major systems integration challenge.

STRICTLY SOFTWARE

54 Taking the bite out of Cobra/The new Cobra law adds a new wrinkle to human resource management systems, but MIS can choose from several approaches to ease its bite.

MICRO DECISIONS

61 386 boards: power at a price/New super-supercharger boards allow MIS to introduce 32-bit IBM PC-standard computing without gambling on new 386 micros.

CIO

66 The CIO: myth or reality?/A roundtable of MIS executives debates the value of a chief information officer to corporations and to MIS/dp.

FOLLOWING THE LEADERS

74 Unconventional keys to success/From product line to management techniques, NCR is bucking the odds for industry survival—and winning.

STRATEGIC SYSTEMS

77 Dark days in data centers/For data centers, moving into the Dark Ages may actually be a leap forward.

Computer Decisions (USPS 771-040 ISSN 0010-4558) is published biweekly for $65 per year by Hayden Publishing Co., Inc., 10 Mulholland Dr., Hasbrouck Heights, NJ 07604. Second-class postage paid at Hackensack, NJ 07602, and additional mailing offices. POSTMASTER: Send address change to *Computer Decisions*, P.O. Box 1031, Southeastern, PA 19398. For subscription information, please call (215)630-9323.

82 Nomad 2 streamlines consolidation efforts/At IC Industries, a fourth-generation language brought together diverse financial reports and applications.

TRAINING

86 The strength in training unity/For some corporations, consortium training can help cut training costs.

INSIDE MFG.

(Appears in selected issues)

76A Finally, CAD and CAM merge/Solid models may be the foundation for systems that fulfill the long-awaited promise of integrated CAD/CAM.

76D Building better CAM/Quality in, quality out is what makes CAM work.

76H Products Mfg.

DEPARTMENTS

8 Insight/Pioneers cure integration blues

10 Letters

88 Products

92 Ad index

Copies printed: 183,059

ble with Unix System V Version 3 are available to developers. AT&T and Interactive Systems (Santa Monica, CA) plan to sell a 386 Unix without the Xenix ties. Upstart Microport Systems (Scotts Valley, CA) claims that next month it will ship a System V Version 3 Unix for the 386 that will eventually support both MS-DOS and Xenix applications. The Microport Runtime System V/386, with an introductory price of $299, is waiting for AT&T certification. □

A richer IBM-DEC emulator

Interlink Computer Sciences, a Fremont, CA-based communications vendor, claims it now offers terminal emulation software providing the richest DEC VT100-to-IBM 3278 emulation available.

The new software runs on MVS mainframes and requires Interlink's 3711 gateway. IBM 3278 emulation costs $5,950, and VT100 emulation $10,980; the gateway is priced at $40,000 to $80,000. The software enhancement gives VT100 terminals full-screen 3278 Model 2 emulation and gives IBM 3278 terminals full-screen VT100 emulation. Previously, only line-mode emulation was available from Interlink and most DEC-IBM link vendors. Interlink claims that the full-screen emulation can work with virtually any DEC or IBM software package. The vendor also says the package lets users reconfigure 27 different function keys, a key feature when trying to make keyboards from the two different vendors act the same. □

In-house net management

More corporations are deciding to handle their own network support and service instead of enlisting the aid of vendors, reports the Ledgeway Group, a Lexington, MA-based market researcher.

Slightly more than half of the 1,000 corporations surveyed by Ledgeway last year reported they were using in-house staff for network management and support tasks. In a 1985 survey, roughly 70 percent said they were relying on vendors for these tasks.

The trend toward in-house support shows that network technology is maturing, the market researcher concludes. As internal staffs mature, network technology stabilizes, and as networks become more important for conducting corporate business, customers are becoming more self-reliant, says Richard C. Munn, Ledgeway's managing director. Ledgeway also reports that most network purchases are now targeted at network expansion rather than new networks. □

Keep those VAXs comin'

In the latest of its VAX-a-month announcements, Digital Equipment Corp. has shifted the balance of power in the VAXBI-bus-based 8000 series by replacing three low-end models.

With the introduction of the VAX 8250, DEC has lowered the entry price into the VAX 8000 series from $88,000 to $65,000. The price/performance ratio of the new model is about 40 percent better than its predecessor, the VAX 8200. For $88,000, users can now purchase a VAX 8350, which offers twice the performance of the VAX 8200. According to the vendor, new VAX ZMOS chip technology is responsible for the performance increases.

At $291,000, the VAX 8530 is about 25 times more powerful and only 2 percent more expensive than the VAX 8500. The VAX 8500 can be upgraded to the VAX 8530 by adding enhanced microcode. According to William Demmer, vice president of DEC's midrange systems business group, DEC will give the microcode to VAX 8500 users without charge.

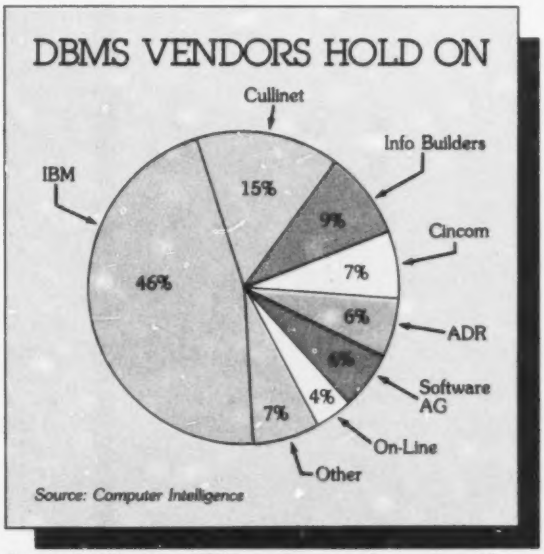
DEC also announced it has cut prices for memory on all VAX models by about 50 percent, and has adjusted prices on all VAX systems. The new prices were not available at press time. □

IBM mini forecast

Expect a 9-MIPS IBM minicomputer early next year in the form of either a "4391" or a high-performance model in IBM's new 937X series, says Bill Husband, a senior consultant to The Meridian Group, a Deerfield, IL-based computer lessor.

The new machine will be part of a series of computers rated at between 3 MIPS and 15 MIPS and will replace the 4381 and the low-end "Sierra" models 3090/150 and 3090/180, Husband predicts.

Furthermore, he says users can expect to see a prepackaged, easy-to-use MVS/XA operating system to entice DOS/VSE diehards to upgrade to MVS/XA, the more functional but higher-priced operating system for the 3090s. □



Despite the shipment of IBM's much improved new release of DB2, the latest numbers from Computer Intelligence show IBM and its competitors retaining about the same percentages of market share in 1986 that they held in 1985.

(Continued from page 29)

standardization of varied proprietary lower-level vendor communications protocols, an effort that is proceeding slowly at different standards bodies, such as the International Standards Organization and the Institute of Electrical and Electronics Engineering. "X Window is just one layer of the communications puzzle that assumes that problems will get straightened out at the lower layers," explains Lerman. Currently, X Window runs on networks with the Unix-oriented TCP/IP transport protocol. To be able to view and access applications on incompatible machines in the network via X Window, users must have already solved signficant networking differences between hardware and software vendors. With ISO's Open Systems Interconnect and other standard protocols gaining acceptance from major workstation vendors, X Window—as a network-independent presentation-layer protocol—may eventually ride atop such standards to connect heterogenous systems.

X Window supporters want to concentrate on the positive, especially at DEC. The vendor's effort to standardize X Window through its new DECwindows program is being labeled by DEC as its most important software architecture development in many years. "Before, there was little similarity between Ultrix and VMS," says Roger Heinen, corporate consulting engineer at DEC. "Now, applications can be written that handle graphics the same way on VMS and Ultrix. It [X Window] will allow us to build hardware that maps against only one software architecture."

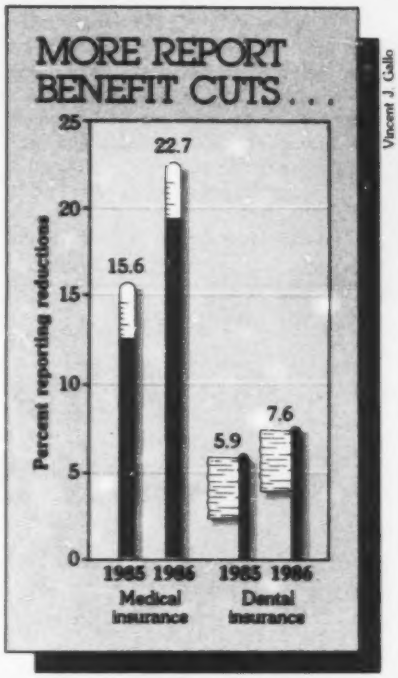
X Window support for all DEC workstations will present users with a common user interface and software developers with a common application interface. Potentially, users will be able to choose any combination of workstations, from micros to 32-bit systems, all running different operating systems but sharing the same interface. For example, a user on an Ultrix, VMS, or MS-DOS workstation could transparently run an application on a remote VAX VMS system. DEC will use one of the X Window tool kits to assemble a "DEC style" interface, and "publish what it looks like so third parties can build applications with similar looks," according to a DEC spokesperson.

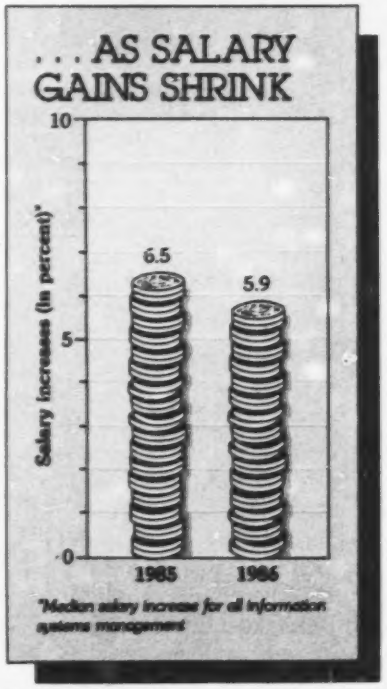
Through DECwindows, applications for Microsoft Windows from Microsoft Corp. (Redmond, WA) and X Window can run on the same micro, according to DEC. The vendor intends to layer the X protocol on top of Microsoft Windows. Users on DEC VAXmate personal computers could run Microsoft's Excel in one window using Microsoft Windows. In another window, they could access and display a remote VAX application, and use the X protocol to transfer information to Microsoft.

More IBM ammo. DEC's strategy to standardize on the X protocol will give DEC additional firepower against rival IBM, observers feel. "[DEC CEO] Ken Olsen has always sounded off about the virtues of one VAX architecture running one operating system [VMS]. But it's no longer one operating system," says Vicki Brown, program manager of CAD/CAE/CAM at International Data Corp., a Framingham, MA, market researcher. "X Window will provide DEC with the glue to have the same user interface across all systems."

Although not all vendors have gone this far with X Window, its support by DEC, Hewlett-Packard, Apollo, Data General Corp. (Westboro, MA), along with IBM's recent endorsement of X Window for its RTPC workstation and software vendors should provide more than enough muscle to drive X Window as a standard. □

Steve Feldman is a free-lance writer based in Boston.





CIO SMALLER RAISES, BENEFITS IN 1986

by David Roman, Associate Editor

MIS/dp management salary increases were smaller in 1986 than in 1985, and many organizations also reduced key medical and dental insurance benefits programs, according to *Computer Decisions'* eighth annual Salary-Status Survey.

The average annual salary for MIS/dp management in 1986 was $44,360, up 5.9 percent from the 1985 average. But the increase was 10 percent smaller than last year's, according to the survey. In addition, the number of respondents reporting that their medical benefits coverage had been reduced nearly doubled in 1986. The number reporting dental benefit decreases jumped more than 20 percent.

Curbing health care costs. "Health care costs have gone up considerably, and most companies have taken steps to control them," says William Yacullo, executive vice president of Lauer, Sbarbaro & Associates, a Chicago-based executive search firm that has worked on compensation and benefits programs for client corporations.

"There is also a trend to keep base salaries in line," Yacullo says. The 1987 Data Processing Salaries Report of the Administrative Management Society (AMS), a professional association based in Willow Grove, PA, also reports a lower average increase in MIS/dp management salaries

for 1986 than for 1985. Management salaries increased 5.7 percent in 1985, but only 4.4 percent last year, AMS found. AMS reports that the average increase in salary for all data processing professionals decreased last year. Salaries increased only 3.5 percent on average, compared with 5.3 percent increases the year before, AMS says.

The *Computer Decisions* Salary-Status Survey found the median salary for those in charge of MIS for their organizations to be $58,235. The median for those managers in charge of dp at a departmental or division level at their organization was $51,111, notably higher than the $42,286 median reported by those responsible for dp for their entire organization. This likely reflects the higher salaries paid by large organizations, in which separate dp operations are often set up for distinct corporate entities. The median salary for those in charge of systems programming at their organizations was $49,375.

Who pays the most. The highest-paid MIS/dp managers, with titles ranging from micro managers to the top information systems executive, work in the financial, banking, and insurance industries. Those managers pull down a median salary of $53,750. Utilities were the next highest paying employers, at $48,888. Manufacturing and processing organizations followed with $47,647, and government agencies paid a median salary of $46,154.

Although women make up, on average, 36.1 percent of the MIS staff at a typical organization, they are more likely to be found working as librarians or machine operators than as programmers or systems analysts. The communications, database, and microcomputer specialist positions are dominated by males at most organizations, according to the *Computer Decisions* survey.

Turnover in management ranks is much lower than among staff, the survey notes. Managers reported an average 7.2 percent turnover rate of their staffs. They report a much lower rate for themselves. Only 3 percent changed positions last year, compared with 5.8 percent of respondents who changed jobs the year before.

A substantial majority of the top MIS/dp executives surveyed supervise programmers (82.9 percent) and analysts (76.5 percent). Only a slim majority oversee microcomputer specialists (57.1 percent) or database specialists (53.4 percent), and only 46 percent have communications specialists reporting to them.

Most of the higher-level managers had responsibility at their organizations for data communications (77.6 percent), for making applications available to end users (77 percent), and for database administration (73.6 percent). Fewer had primary responsibility for departmental microcomputers (70.5 percent), office automation (67.7 percent), and local-area networks (67.1 percent). A minority of repondents were responsible for voice and phone communications (32.9 percent), CAD/CAM/CAE applications (27.8 percent), and factory automation (13.4 percent).

Computer Decisions' Salary-Status Survey, conducted by Abbott, Langer & Associates, was mailed to 1,950 managers selected from the magazine's subscription list. Reported results are based on 365 returned questionnaires. Complete results of the survey are available from Abbott, Langer & Associates, 548 First St., Crete, IL 60417, (312) 672-4200. □

Why does Renault accelerate with Zeke:

Renault always runs smoothly with Zeke automated scheduling. "Zeke was extremely easy to implement," says H. Taieb, Data Processing Manager of Renault Flins. "And once in place, the software paid for itself in three months.

"Zeke allowed us to reduce out-of-order submissions and speed the batch process, thereby eliminating a full shift on Saturday."

Faster throughput. Greater productivity. Fewer reruns.

Zeke works for Renault.

Why not put Zeke to work for you?

ZEKE
The scheduler that works.

SOUTHWEST SOFTWARE
Software that works.
813 Great Southwest Parkway Arlington, Texas 76011-5428
(817) 640-8911 (answered 24 hours a day) 1-800-227-7774 (outside Texas)

ALTAI An Altai, Inc. Company

CIRCLE 16